



CIGNA MEDICAL COVERAGE POLICY

The following Coverage Policy applies to all plans administered by CIGNA Companies including plans administered by Great-West Healthcare, which is now a part of CIGNA.

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Subject Acne Procedures

Table of Contents

Coverage Policy	1
General Background	2
Coding/Billing Information	7
References	8
Policy History.....	12

Hyperlink to Related Coverage Policies

- Actinic Keratosis Treatments
- Benign Skin Lesion Removal
- Photodynamic Therapy for Dermatologic Conditions
- Phototherapy and Photochemotherapy for Dermatological Conditions
- Rosacea Procedures
- Scar Revision

INSTRUCTIONS FOR USE

Coverage Policies are intended to provide guidance in interpreting certain **standard** CIGNA HealthCare benefit plans as well as benefit plans formerly administered by Great-West Healthcare. Please note, the terms of a participant's particular benefit plan document [Group Service Agreement (GSA), Evidence of Coverage, Certificate of Coverage, Summary Plan Description (SPD) or similar plan document] may differ significantly from the standard benefit plans upon which these Coverage Policies are based. For example, a participant's benefit plan document may contain a specific exclusion related to a topic addressed in a Coverage Policy. In the event of a conflict, a participant's benefit plan document **always supercedes** the information in the Coverage Policies. In the absence of a controlling federal or state coverage mandate, benefits are ultimately determined by the terms of the applicable benefit plan document. Coverage determinations in each specific instance require consideration of 1) the terms of the applicable group benefit plan document in effect on the date of service; 2) any applicable laws/regulations; 3) any relevant collateral source materials including Coverage Policies and; 4) the specific facts of the particular situation. Coverage Policies relate exclusively to the administration of health benefit plans. Coverage Policies are not recommendations for treatment and should never be used as treatment guidelines. Proprietary information of CIGNA. Copyright ©2009 CIGNA

Coverage Policy

Coverage for the treatment of acne scarring is dependent on benefit plan language, may be subject to the provisions of a cosmetic and/or reconstructive surgery benefit, and may be governed by state mandates. Under many benefit plans, treatment of acne scarring is not covered when performed solely for the purpose of altering appearance or self-esteem or to treat psychological symptomatology or psychosocial complaints related to one's appearance. Please refer to the applicable benefit plan language to determine benefit availability and the terms, conditions and limitations of coverage.

Please refer to the applicable pharmacy benefit to determine benefit availability and the terms and conditions of coverage for acne medications.

CIGNA covers ANY of the following procedures as medically necessary for the treatment of active acne vulgaris:

- manual comedone extraction for noninflammatory comedones
- intralesional injections of corticosteroids (e.g., triamcinolone acetonide) for large nodules
- incision and drainage or opening and removal of cysts or pustules
- cryotherapy/cryosurgery (e.g., liquid nitrogen, acetone slush, carbon dioxide [CO₂]) for isolated inflammatory nodular lesions that fail to respond to topical and systemic medication therapy

- light cautery/electrocauterization or CO₂ laser for multiple macrocomedones (e.g., microcystic acne, whiteheads greater than 1.5 mm in diameter) that fail to respond to topical and systemic medication therapy

CIGNA does not cover ANY of the following for the treatment of active acne vulgaris, when used alone or in combination, because each is considered experimental, investigational or unproven (this list may not be all-inclusive):

- chemical peels of any type (e.g., superficial, medium-depth and deep, as well as slush peels)
- phototherapy (including exposure to ultraviolet A or B or to red, blue or red-blue light), photodynamic therapy (PDT) or Psoralens ultraviolet actinotherapy (PUVA), or pulsed dye laser therapy

Under many benefit plans, CIGNA does not cover the treatment of acne scarring and other untoward cosmetic effects of acne, including, but not limited to, any of the following procedures when used alone or in combination because each is considered cosmetic in nature and not medically necessary:

- chemical peels of any type (e.g., superficial, medium-depth and deep peels, slush peels or chemabrasion)
- dermabrasion/dermaplaning/salabrasion (i.e., abrasion with salt)
- microdermabrasion/particulate resurfacing
- dermabrasion with selective freezing or icing (e.g., using ethyl chloride or Freon)
- dermaplaning
- collagen injections
- polymethyl-methacrylate microspheres with collagen (e.g., Artecoll[®], Rofil Medical USA)
- gelatin matrix implant
- hyaluronic acid derivative fillers (e.g., Restylane[®], Q-Med Inc.)
- autologous fat replacement
- punch biopsy elevation
- punch excision with or without full-thickness skin graft replacement
- electrodesiccation
- cryopeeling (i.e., superficial freezing of damaged skin) for small, widespread hypertrophic scars
- laser dermablation/laser abrasion using carbon dioxide or erbium:YAG lasers with or without follow-up cryotherapy
- cryotherapy/cryosurgery, when performed to treat acne scarring
- pulsed dye laser (PDL) treatment, when performed to treat acne scarring
- subcision or subcutaneous incision

General Background

Acne vulgaris is a chronic, inflammatory disease of the pilosebaceous follicles characterized by the formation of open and closed comedones (i.e., whiteheads and blackheads), erythematous papules and pustules, pseudocysts and nodules. It is generally a condition of adolescence involving the face, neck, upper trunk and upper arms. Factors responsible for the pathogenesis of acne vulgaris include increased sebum production, abnormality of the microbial flora, abnormal keratinization of sebaceous and follicular epithelium/ductal hypercornification, and inflammation.

The general principles of acne treatment include decreasing sebaceous gland secretion, correcting altered patterns of ductal hypercornification/abnormal keratinization, decreasing the population of the bacterium *Propionibacterium acnes* (*P. acnes*) and reducing inflammation. Acne vulgaris therapies range from over-the-counter and prescription topical medications to systemic therapy with antibiotics, retinoids and hormonal medications, to physical modalities, including surgery. Selection of an intervention is dependent upon the extent, severity and duration of the condition, as well as the type of lesions involved. Topical therapy is considered the appropriate first-line treatment for most patients with acne. Oral medications may be indicated when topical treatment fails.

Physical and Surgical Treatment

Physical modalities are an option when more conservative treatment fails to improve the condition. Therapies considered the standard of care include comedone removal; cryotherapy or superficial freezing with liquid nitrogen, acetone slush or carbon dioxide; and intralesional steroid injections. While chemical peels are used in practice, their role in the treatment of active acne has not been established. Typically, incision and drainage of pustules is not used as a treatment option because of possible resultant scarring. Comedone removal, performed by a physician using a comedone extractor, can be used for the treatment of isolated noninflammatory comedones. Cryotherapy with carbon dioxide (CO₂), liquid nitrogen, acetone slush, or solid carbon dioxide mixed with acetone can be used for isolated inflammatory nodular lesions; however, this method is typically reserved for patients who did not respond to more conventional therapy. Intralesional injections of triamcinolone acetonide can be helpful in the treatment of large nodules. Removal of densely-packed, closed comedones, macrocomedones, and cysts by electrocautery or CO₂ laser is generally reserved for patients in whom well-established topical or systemic therapy has failed.

Chemical Peels

A chemical peel involves the application of a chemical solution with the goal of producing controlled removal of layers of the epidermis and superficial dermis. Chemical peel solutions damage the outer layers of the skin and stimulate collagen formation, resulting in dermal regeneration and thereby improving the appearance of the skin. Alpha-hydroxy acids (AHAs), such as glycolic, lactic, or fruit acid, are used in superficial peeling to rejuvenate and resurface sun-damaged skin, soften the appearance of pores, treat fine wrinkles and reduce uneven pigmentation. Trichloroacetic acid (TCA) is used for medium-depth peeling to treat surface wrinkles and sun-damaged skin. Phenol, the strongest agent, is used in deep chemical peeling to diminish coarse facial wrinkles and correct pigment abnormalities.

Although chemical peels are generally performed for cosmetic purposes, it has been suggested that superficial or epidermal peels, using AHAs, may have a comedolytic effect on comedonal acne lesions by loosening follicular impaction and may be appropriate for individuals with widespread lesions for whom standard treatment has failed. However, the role of superficial peels in the overall management of patients with active acne has not been established through well-designed trials. Randomized controlled trials (RCTs) directly comparing alpha-hydroxy acids with well-established treatments, such as topical retinoids, are lacking. Evidence supporting this technique exists primarily in the form of anecdotal reports.

While medium-depth and deep chemical peels are typically performed for cosmetic purposes, they may also have an application in the treatment of patients with large numbers of actinic keratoses or other pre-malignant lesions. They are not, however, considered appropriate for active acne, as they have been shown to exacerbate the inflammation associated with acne.

There is insufficient evidence in the published, peer-reviewed scientific literature to support the use of any type of chemical peel in the treatment of active acne vulgaris. The use of chemical peels, when performed to alter or improve the appearance of the skin, is considered cosmetic in nature.

Phototherapy/Ultraviolet Radiation and Laser Therapy/Photodynamic Therapy

U.S. Food and Drug Administration (FDA): The ClearLight™ System (CureLight Ltd., Or Akiva, Israel) has been approved by the U.S. Food and Drug Administration (FDA) under the 510(k) process for the treatment of moderate, inflammatory acne vulgaris. This system is a high-intensity lamp that emits visible light in the violet-blue range. The FDA approved the Smoothbeam™ Diode Laser System (Candela, Wayland, MA) for the treatment of mild-to-moderate inflammatory acne vulgaris in December 2003. This continuous-wave laser is controlled by an internal processor and contains a cooling device designed to reduce the discomfort associated with laser therapy.

The Aesthera Photopneumatic™ (PPx™) System (Aesthera Corporation, Pleasanton, CA) was granted marketing approval by the FDA via the 510(k) process on September 7, 2006, because it is considered to be substantially equivalent to the Aesthera AIP™ Intense Pulsed Light System. Under the FDA 510(k) approval process, the manufacturer is not required to supply to the FDA evidence of the effectiveness of the PPx prior to marketing the device. Intended uses for the PPx include the treatment of mild-to-moderate acne, including pustular acne, comedonal acne, and mild-to-moderate inflammatory acne (acne vulgaris).

Phototherapy: Exposure to ultraviolet radiation or other light (e.g., Ultraviolet B, Ultraviolet A, red light, blue light, mixed red-blue light and Psoralens Ultraviolet Actinotherapy) has been proposed as a treatment for acne vulgaris. Proponents suggest that *P. acnes* produces porphyrins, which absorb light energy at the near-ultraviolet and blue-light spectrum (Kaminsky, 2003), leading to oxidation and ultimately destroying bacteria. It has also been theorized that exposure produces a comedolytic action. None of these hypotheses has been proven, however. Potential short- and long-term side effects of repeated exposure to ultraviolet radiation include nausea, itching and burning of the affected area, premature aging and cancer of the skin, and eye damage.

In general, studies evaluating the safety and efficacy of visible light therapy have been small with limited follow-up, and few have compared the efficacy of visible light to that of established treatments for acne. Papageorgiou et al. (2000) conducted a study of 107 patients with mild-to-moderate acne who were randomized into four treatment groups: blue light, mixed blue and red light, cool white light, and 5% benzoyl peroxide cream. Although results indicated that patients in the mixed light group demonstrated a greater improvement in acne lesions than patients in the other three groups, this difference was not found to be statistically significant.

Elman et al. (2003) reported results from three small studies evaluating the clinical effects of blue-light therapy on papulo-pustular acne: a split-face dose response study (n=10); a full-face open trial (n=13); and a split-face, double-blind controlled study (n=23). According to the authors, the data from all three studies demonstrated that phototherapy with blue light resulted in mean reduction on inflammatory acne lesions ranging from 50–81%.

Morton et al. (2005) performed an open study to determine the effect of blue-light therapy in 30 subjects with mild-to-moderate acne. Patients received either 10- or 20-minute treatments over a period of four weeks. The authors reported an average clearance of inflamed lesions of 73% at four and eight weeks post-treatment.

Gold et al. (2005) compared the safety and efficacy of blue light alone to topical 1% clindamycin solution therapy in patients with mild-to-moderate inflammatory acne vulgaris of the face in a small, randomized, single-blinded pilot study. Patients were randomized to receive either blue-light therapy two times per week (n=12) or self-administered topical clindamycin twice daily (n=13). All 25 patients completed the four-week treatment phase, and 18 of these completed the four-week follow-up phase. The investigators concluded that the results of this clinical trial showed that blue light may be superior to topical 1% clindamycin solution, especially for inflammatory acne. It was noted, however, that larger clinical trials are needed to confirm these findings.

Lee et al. (2006) evaluated the efficacy of combined blue and red light-emitting diode (LED) phototherapy for acne vulgaris. The investigators treated 24 patients with mild to moderately severe facial acne using alternating blue- and red-light therapy. The treatment was performed twice a week for four weeks. Objective assessments of the skin condition were performed before and after treatment at each session. At eight weeks, the final mean percentage improvements in noninflammatory and inflammatory lesions were 34.28% and 77.93%, respectively. Limitations to this study include the small sample size and lack of a control group. It was concluded that blue- and red-light combination LED phototherapy is an effective, safe and nonpainful treatment for mild to moderately severe acne vulgaris, particularly for papulopustular acne lesions. However, it was noted that additional investigation through randomized, controlled, blinded studies are needed to determine the efficacy and optimize treatment parameters for this combination phototherapy (Lee, et al., 2006).

Jih et al. (2006) assessed the dose response of a 1450-nm diode laser for treatment of inflammatory facial acne, sebum production, and acne scarring using two laser fluences and assessed long-term remission after laser treatment. A total of 20 patients received three treatments at three- to four-week intervals using the 1450-nm diode laser. Split-face comparisons were performed by randomizing patients to one of two fluences (14 or 16 J/cm²) on the right or left side of the face. Outside of this study, the highest fluence available was 16 J/cm². Clinical photographs, lesion counts, and sebum measurements were obtained at baseline and after each treatment. Results indicated that reductions in inflammatory acne lesion counts were similar at the two fluences, with a persistent reduction of 76.1% (14 J/cm²) and 70.5% (16 J/cm²) at the 12-month follow-up (p<0.01). Both objective and subjective improvements in acne scarring and sebum production were noted. A slightly higher pain score was reported for the higher fluence, but only for the first treatment session. Adverse effects were limited to transient erythema and edema at treatment sites. Drawbacks to the study include its small sample size and the comparison being limited to two laser fluences. According to the authors, results of this study show that the higher fluence on the 1450-nm diode laser was very effective for the treatment of inflammatory acne (Jih, et al., 2006).

Orringer et al. (2007) examined the effectiveness of an infrared laser in a randomized, controlled, single-blind, split-face clinical trial of 46 patients with facial acne. Patients received a series of three nonablative laser treatments to half of the face. Serial blinded lesion counts and global acne severity rating of patient photographs were performed. Sebum production was measured, and patient self-assessment surveys were administered. The 14-week study was completed by 30 participants. A statistically significant decline of 27% was found in treated skin compared to a 12% increase in control skin ($p=0.04$). There was also a significantly lower cystic lesion count in treated skin compared to untreated skin at 14 weeks ($p=0.04$). In general, lesion counts were noted to wax and wane bilaterally, seemingly independent of therapy. Laser therapy was reported to have created at least moderate discomfort by 74% of patients responding to a survey question. Patient surveys indicated that the majority of patients found the treatments to be at least mildly effective for both acne and oiliness. Study limitations include small sample size and lack of objective data to reflect the effectiveness of laser therapy (Orringer, et al., 2007).

Ammad et al. (2008) evaluated the use of blue light therapy in 21 patients with mild to moderate facial acne. All patients received 14-minute treatment sessions twice a week for four weeks. Acne severity was assessed using the Leeds Technique for grading and lesion counts. Visual analog scale (VAS) scores and cultures for P. acnes were carried out before starting the treatment and upon completion of the treatment. Standard digital photographs were graded by a blinded evaluator. Significant improvement was reported in acne severity ($p=0.001$), inflammatory ($p=0.001$) and noninflammatory ($p=0.06$) lesion counts. P. acnes colony counts did not show a significant decrease at the end of the treatment and remained essentially unchanged ($p=0.660$). This study is limited by the nonrandomized design, small number of subjects, and short-term follow-up.

Although promising, there is insufficient evidence in the published, peer-reviewed scientific literature to support the use of ultraviolet radiation or laser phototherapy in the treatment of acne vulgaris. Well-designed, large-population, controlled, comparative studies are needed before the role of phototherapy in the management of active acne vulgaris can be established.

Pulsed Dye Laser (PDL): PDL has been used as a treatment for mild-to-moderate acne. This type of laser is designed to destroy small blood vessels under the first layer of skin without destroying the surrounding tissue and, as such, is typically used to treat vascular lesions. Seaton et al. (2003) compared PDL to sham in a small RCT. Primary outcome measures were acne severity after 12 weeks and the occurrence of adverse events at any time. It was reported that patients who received PDL ($n=31$) had a 49% decrease in inflammatory lesions versus a reduction of 10% for those in the sham treatment group ($n=10$). In the opinion of the authors, PDL therapy resulted in an improvement of inflammatory facial acne.

Orringer et al. (2004) conducted a single-blind, split-face clinical trial ($n=40$) to evaluate the efficacy of pulsed dye laser therapy for acne. Participants were randomized to receive either one or two laser treatments to one side of the face, with the other, nontreated side serving as a control. Changes in lesion count were measured from baseline to 12 weeks. The authors concluded that PDL did not result in significant improvement of facial acne. Because the limited studies conducted to date have yielded inconsistent results, additional well-designed, RCTs are needed before PDL can become a proven modality for the treatment of acne.

Haerdersdal et al. (2008) conducted an RCT with split-face design ($n=15$) to evaluate the safety and efficacy of long-pulsed dye laser (LPDL)-LPDL alone versus LPDL in photodynamic therapy with methylaminolevulinic acid (MAL-LPDL) for acne vulgaris. Each subject received three full-face LPDL treatments and half-face MAL treatments at two-week intervals. MAL treatments were randomly assigned to the left or right side of the face. Lesions were counted prior to treatment and at weeks four and 12 post-treatment. A total of 12 subjects were available for follow-up at 12 weeks. There was a significantly greater reduction in inflammatory lesions on the MAL-LPDL-treated side versus the LPDL-treated side at four weeks ($p=0.003$) and 12 weeks ($p=0.004$) with up to 80% reduction in inflammatory lesions. Erythema, edema, and pustular eruptions occurred one day after the first treatment and were reported to be significantly more intense on the MAL-LPDL-treated side than on the LPDL-treated side. Study limitations include small sample size and loss to follow-up.

Photodynamic Therapy (PDT): PDT is characterized by the use of visible light in conjunction with the topical application of a photosensitizer. PDT with 5-aminolevulinic acid (ALA) or methyl aminolaevulinate has also been proposed as a treatment for acne vulgaris. A few small studies ($n=10-22$) have reported clinical improvement of acne lesions after treatment with ALA-PDT (Pollack, et al., 2004; Taub, 2004; Goldman and Boyce, 2003).

The Institute for Clinical Systems Improvements (ICSI) guideline for acne management states that the use of both a topical retinoid and a topical antibiotic has been found to be an effective course of treatment. The guideline further states that, although there continue to be numerous studies about light treatment for acne, including blue light and PDT (photodynamic therapy with and without pretreatment with topical medications), the evidence is inadequate at this time to make a recommendation about the efficacy and safety of these treatments (ICSI, 2006).

In a blinded, prospective, randomized, placebo-controlled multicenter study (n=30), Horfelt et al. (2006) investigated the efficacy and tolerability of methyl aminolaevulinate photodynamic therapy (MAL-PDT) for treatment of moderate to severe facial acne. Inflammatory and noninflammatory acne lesions were counted at baseline and four and 10 weeks after the last PDT treatment. Each side of each patient's face was randomly assigned to treatment with MAL (160 mg/g) or placebo cream, applied for three hours prior to illumination. A second treatment was given two weeks later. During each session, patients assessed the intensity of pain using a visual analogue scale (VAS). There was a statistically significant greater reduction in the total inflammatory lesion count with MAL-PDT compared with placebo PDT at week 12 (p=0.0006). MAL-PDT was associated with more pain than placebo PDT, although intensity varied across centers and was reduced with repeated treatment. The investigators concluded that MAL-PDT is effective in the treatment of moderate-to-severe inflammatory facial acne; however, it was stated that "further studies are warranted to optimize this promising procedure" (Horfelt, et al., 2006).

Wiegell and Wulf (2006) evaluated the efficacy and tolerability of MAL-PDT in 36 patients with moderate- to-severe facial acne vulgaris in another blinded RCT. Twenty-one patients were assigned to the treatment group and 15 patients to the control group. The treatment group received two MAL-PDT treatments, two weeks apart. Only 23 patients completed the study, as five left prior to the first visit and seven did not receive the second treatment because of adverse effects during and after the first treatment. All patients experienced moderate-to-severe pain during treatment and developed severe erythema, pustular eruptions and epithelial exfoliation. Both groups were evaluated four, eight and 12 weeks after treatment. Twelve weeks after treatment, the treatment group showed a 68% reduction from baseline in inflammatory lesions compared to no change in the control group (p=0.0023). The authors found MAL-PDT to be an efficient treatment for inflammatory acne. However, the treatment was associated with severe pain during treatment and severe adverse effects after treatments (Wiegell and Wulf, 2006).

Yeung et al. (2007) evaluated the effectiveness of intense pulsed light (IPL) alone and IPL combined with MAL-PDT in Asian subjects (n=30) with acne vulgaris. Subjects were randomly assigned to one of two groups. The first group (n=14) received half-face treatment with IPL, with the other side of the face serving as control. Subjects in the second group (n=16) received full-facial exposure to IPL after topical application of 16% MAL cream on half of the face for 30 minutes. A total of four treatments was administered at three-week intervals. The assessment of inflammatory and non-inflammatory acne lesions by two blinded investigators was based on standardized photographs that were taken before each treatment, and at four and 12 weeks after the final treatment. The study was completed by 23 patients. No statistically significant differences were found between the intervention groups and the control group in the mean reduction of inflammatory lesions. Significant reductions of noninflammatory lesions were observed in the MAL-PDT group (p=0.05) and IPL group (p=0.00) 12 weeks after treatment. It was reported that 25% of the subjects in the PDT group withdrew from the study because of intolerance to procedure-related discomfort. The study is limited by the relatively small sample size and loss to follow-up (Yeung, et al., 2007).

Haerdersdal et al. (2008) performed a systematic review to assess the effects of optical treatments for acne vulgaris. A total of 16 RCTs and three controlled trials were evaluated (n=587). The interventions included PDL, PDT, infrared lasers, broad-spectrum light sources and intense pulsed light. Most studies were intraindividual trials (12/19) with blinded response evaluations (12/19) and evaluated a short-term efficacy up to 12 weeks after treatment (17/19). Optical treatments were compared to standard intervention in two trials. Side-effects from optical treatments included pain, erythema, edema, crusting, hyperpigmentation, pustular eruptions and were reported to be more intense for treatments combined with ALA or MAL. It was summarized that based on the available evidence, optical treatments may improve inflammatory acne on a short-term basis. The most consistent outcomes were found for PDT. The reviewers noted that further studies are needed comparing optical versus conventional treatments (Haerdersdal, et al., 2008).

At this time, the published, peer-reviewed scientific literature contains insufficient evidence to support the use of PDT in the treatment of acne vulgaris.

Professional Societies/Organizations

The American Academy of Dermatology (AAD) guidelines for the management of acne vulgaris state that topical therapy and systemic antibiotics are a standard of care for the treatment of acne vulgaris. The effect of intralesional injection with corticosteroids is also a well-established and recognized treatment for large inflammatory lesions. Although both glycolic acid-based and salicylic acid-based peeling preparations have been used in the treatment of this condition, there is very little evidence from clinical trials published in the peer-reviewed literature supporting the efficacy of peeling regimens. Additional research on the use of chemical peeling in the treatment of acne needs to be conducted in order to establish best practices for this modality. It is noted that the topic of light and laser therapy for the treatment of acne vulgaris will be addressed in a future guideline (Strauss, et al., 2007).

Summary

Established treatments for acne vulgaris include topical therapies (e.g., antimicrobials, retinoids) and systemic therapies such as antibiotics, isotretinoin and hormonal medications. For patients who develop significant side effects or fail to respond to these options, physical or surgical treatment (e.g., cryotherapy, intralesional steroid injections, electrocauterization, comedone extraction) may be considered. Currently, there is insufficient evidence in the published, peer-reviewed scientific literature to support the use of phototherapy or chemical peels in the treatment of active acne vulgaris. Further well-designed, large-scale, randomized clinical trials are needed to determine the role of these modalities as an alternative to standard therapies. Even with appropriate treatment, scarring and other unwanted cosmetic changes, such as hyperpigmentation, are common complications of acne vulgaris. The goal of treating these sequelae is to improve appearance. Interventions such as dermabrasion, autologous fat replacement, or cryopeeling are generally considered to be cosmetic in nature when performed for acne scarring and are not appropriate for the treatment of active acne vulgaris.

Coding/Billing Information

Note: This list of codes may not be all-inclusive.

Covered when medically necessary:

CPT ^{®*} Codes	Description
10040	Acne surgery (e.g., marsupialization, opening or removal of multiple milia, comedones, cysts, pustules)
11900	Injection, intralesional; up to and including seven lesions
11901	Injection, intralesional; more than seven lesions
17110	Destruction (eg, laser surgery, electrosurgery, cryosurgery, chemosurgery, surgical curettement), of benign lesions other than skin tags or cutaneous vascular lesions; up to 14 lesions
17111	Destruction (eg, laser surgery, electrosurgery, cryosurgery, chemosurgery, surgical curettement), of benign lesions other than skin tags or cutaneous vascular lesions; 15 or more lesions
17340	Cryotherapy (CO2 slush, liquid N2) for acne

ICD-9-CM Diagnosis Codes	Description
706.1	Other acne

Experimental/Investigational/Unproven/Not Medically Necessary/Cosmetic/Not Covered:

CPT* Codes	Description
15780 [†]	Dermabrasion; total face (eg, for acne scarring, fine wrinkling, rhytids, general

	keratosis)
15781 [†]	Dermabrasion; segmental, face
15782 [†]	Dermabrasion; regional, other than face
15788 [†]	Chemical peel, facial; epidermal
15789 [†]	Chemical peel, facial; dermal
15792 [†]	Chemical peel, nonfacial; epidermal
15793 [†]	Chemical peel, nonfacial; dermal
17360 [†]	Chemical exfoliation for acne (e.g., acne paste, acid)
96900 [†]	Actinotherapy (ultraviolet light)
96910 [†]	Photochemotherapy; ultraviolet B Goeckerman treatment) or petrolatum and ultraviolet B
96912 [†]	Photochemotherapy; psoralens and ultraviolet A (PUVA)

HCPCS Codes	Description
E0691 [†]	Ultraviolet light therapy system, includes bulbs/lamps, timer and eye protection; treatment area two square feet or less
E0692 [†]	Ultraviolet light therapy system, includes bulbs/lamps, timer and eye protection, four foot panel
E0693 [†]	Ultraviolet light therapy system, includes bulbs/lamps, timer and eye protection, six foot panel
E0694 [†]	Ultraviolet multidirectional light therapy system in six foot cabinet, includes bulbs/lamps, timer and eye protection

[†]**Note:** Not covered when provided as a treatment for active acne vulgaris or acne scarring.

*Current Procedural Terminology (CPT®) ©2008 American Medical Association: Chicago, IL.

References

1. Albert MR, Ostheimer KG. The evolution of current medical and popular attitudes toward ultraviolet light exposure: part 3. *J Am Acad Dermatol.* 2003 Dec;49(6):1096-106.
2. Alexiades-Armenakas M. Aminolevulinic acid photodynamic therapy for actinic keratoses/actinic cheilitis/acne: vascular lasers. *Dermatol Clin.* 2007 Jan;25(1):25-33.
3. Ammad S, Gonzales M, Edwards C, Finlay AY, Mills C. An assessment of the efficacy of blue light phototherapy in the treatment of acne vulgaris. *J Cosmet Dermatol.* 2008 Sep;7(3):180-8.
4. Bershada SV. The modern age of acne therapy: a review of current treatment options. *Mt Sinai J Med.* 2001 Sep-Oct;68(4 & 5):279-86.
5. Bhardwaj SS, Rohrer TE, Arndt K. Lasers and light therapy for acne vulgaris. *Semin Cutan Med Surg.* 2005 Jun;24(2):107-12.
6. Bradley DT, Park SS. Scar revision via resurfacing. *Facial Plast Surg.* 2001 Nov;17(4):253-62.
7. Brown SK, Shalita AR. Acne vulgaris. *Lancet.* 1998 Jun 20;351(9119):1871-6.
8. Charakida A, Seaton ED, Charakida M, Mouser P, Avgerinos A, Chu AC. Phototherapy in the treatment of acne vulgaris: what is its role? *Am J Clin Dermatol.* 2004;5(4):211-6.
9. ECRI Institute. Hotline Response [database online]. Plymouth Meeting (PA): ECRI Institute; 2007 Jun 5. Laser Therapy for Acne. Available at URL address: <http://www.ecri.org>.

10. ECRI Institute. Hotline Response [database online]. Plymouth Meeting (PA): ECRI Institute; 2007 Jun 4. Blue Light Therapy for Acne. Available at URL address: <http://www.ecri.org>.
11. Elman M, Slatkine M, Harth Y. The effective treatment of acne vulgaris by a high-intensity, narrow band 405-420 nm light source. *J Cosmet Laser Ther*. 2003 Jun;5(2):111-7.
12. Feldman S, Careccia RE, Barham KL, Hancox J. Diagnosis and treatment of acne. *Am Fam Physician*. 2004 May 1;69(9):2123-30.
13. Fitzpatrick RE. CO2 laser resurfacing. *Dermatol Clin*. 2001 Jul;19(3):443-51.
14. Gold MH, Rao J, Goldman MP, Bridges TM, Bradshaw VL, Boring MM, et al. A multicenter clinical evaluation of the treatment of mild to moderate inflammatory acne vulgaris of the face with visible blue light in comparison to topical 1% clindamycin antibiotic solution. *J Drugs Dermatol*. 2005 Jan-Feb;4(1):64-70.
15. Gold MH. Acne and PDT: new techniques with lasers and light sources. *Lasers Med Sci*. 2007 Jun;22(2):67-72. Epub 2007 Jan 16.
16. Goldman MP, Boyce SM. A single-center study of aminolevulinic acid and 417 NM photodynamic therapy in the treatment of moderate to severe acne vulgaris. *J Drugs Dermatol*. 2003 Aug;2(4):393-6.
17. Gollnick H, Cunliffe W, Berson D, Dreno D, Finlay A, Leyden JJ, et al. Management of acne: report from a Global Alliance to Improve Outcomes in Acne. *J Am Acad Dermatol*. 2003 Jul;49(1 Suppl):S1-37.
18. Gollnick H. Current concepts of the pathogenesis of acne: implications for drug treatment. *Drugs*. 2003;63(15):1579-96.
19. Gollnick HP, Krauthem A. Topical treatment in acne: current status and future aspects. *Dermatology*. 2003;206(1):29-36.
20. Friedman PM, Jih MH, Kimyai-Asadi A, Goldberg LH. Treatment of inflammatory facial acne vulgaris with the 1450-nm diode laser: a pilot study. *Dermatol Surg*. 2004 Feb;30(2 Pt 1):147-51.
21. Haedersdal M, Togsverd-Bo K, Wulf HC. Evidence-based review of lasers, light sources and photodynamic therapy in the treatment of acne vulgaris. *J Eur Acad Dermatol Venereol*. 2008 Mar;22(3):267-78. Epub 2008 Jan 23.
22. Haedersdal M, Togsverd-Bo K, Wiegell SR, Wulf HC. Long-pulsed dye laser versus long-pulsed dye laser-assisted photodynamic therapy for acne vulgaris: A randomized controlled trial. *J Am Acad Dermatol*. 2008 Mar;58(3):387-94.
23. Harper JC. An update on the pathogenesis and management of acne vulgaris. *J Am Acad Dermatol*. 2004 Jul;51(1 Suppl):S36-8.
24. Hong SB, Lee MH. Topical aminolevulinic acid-photodynamic therapy for the treatment of acne vulgaris. *Photodermatol Photoimmunol Photomed*. 2005 Dec;21(6):322-5.
25. Horfelt C, Funk J, Frohm-Nilsson M, Wiegleb Edstrom D, Wennberg AM. Topical methyl aminolaevulinate photodynamic therapy for treatment of facial acne vulgaris: results of a randomized, controlled study. *Br J Dermatol*. 2006 Sep;155(3):608-13.
26. Institute for Clinical Systems Improvement (ICSI). Acne Management. September, 2003. Updated May, 2006. Accessed December 21, 2005, January 4, 2007. Available at URL address: <http://www.icsi.org/knowledge/detail.asp?catID=29&itemID=832>
27. Jacob CI, Dover JS, Kaminer MS. Acne scarring: a classification system and review of treatment options. *J Am Acad Dermatol*. 2001 Jul;45(1):109-17.

28. Jih MH, Friedman PM, Goldberg LH, Robles M, Glaich AS, Kimyai-Asadi A. The 1450-nm diode laser for facial inflammatory acne vulgaris: dose-response and 12-month follow-up study. *J Am Acad Dermatol*. 2006 Jul;55(1):80-7.
29. Jordan RE, Cummins CL, Burls AJ, Seukeran DC. Laser resurfacing for facial acne scars. *Cochrane Database Syst Rev*. 2001;(1):CD001866.
30. Kaminsky A. Less common methods to treat acne. *Dermatology*. 2003;206(1):68-73.
31. Karsai S, Roos S, Hammes S, Raulin C. Pulsed dye laser: what's new in non-vascular lesions? *J Eur Acad Dermatol Venereol*. 2007 Aug;21(7):877-90.
32. Kempiak SJ, Uebelhoer N. Superficial chemical peels and microdermabrasion for acne vulgaris. *Semin Cutan Med Surg*. 2008 Sep;27(3):212-20.
33. Landau M. Advances in deep chemical peels. *Dermatol Nurs*. 2005 Dec;17(6):438-41.
34. Lee SY, You CE, Park MY. Blue and red light combination LED phototherapy for acne vulgaris in patients with skin phototype IV. *Lasers Surg Med*. 2006 Nov 16; [Epub ahead of print]
35. Lehmann HP, Robinson KA, Andrews JS, Holloway V, Goodman SN. Acne therapy: a methodologic review. *J Am Acad Dermatol*. 2002 Aug;47(2):231-40.
36. Leyden JJ. Therapy for acne vulgaris. *New Engl J Med*. 1997 Apr 17;336(16):1156-62.
37. Mariwalla K, Rohrer TE. Use of lasers and light-based therapies for treatment of acne vulgaris. *Lasers Surg Med*. 2005 Dec;37(5):333-42.
38. Monheit GD. Medium-depth chemical peels. *Dermatol Clin*. 2001 Jul;19(3):413-25.
39. Morton CA, Scholefield RD, Whitehurst C, Birch J. An open study to determine the efficacy of blue light in the treatment of mild to moderate acne. *J Dermatolog Treat*. 2005;16(4):219-23.
40. Na JI, Suh DH. Red light phototherapy alone is effective for acne vulgaris: randomized, single-blinded clinical trial. *Dermatol Surg*. 2007 Oct;33(10):1228-33; discussion 1233.
41. Odom RB, James WD, Berger TG. Acne. In: Odom RB, James WD, Berger TG, editors. *Andrews' diseases of the skin: clinical dermatology*. 9th ed. Philadelphia, PA: W.B. Saunders Company; 2000. Chapter 13.
42. Orringer JS, Kang S, Hamilton T, Schumacher W, Cho S, Hammerberg C, et al. Treatment of acne vulgaris with a pulsed dye laser: a randomized controlled trial. *JAMA*. 2004 Jun 16;291(23):2834-9.
43. Orringer JS, Kang S, Maier L, Johnson TM, Sachs DL, Karimipour DJ, et al. A randomized, controlled, split-face clinical trial of 1320-nm Nd:YAG laser therapy in the treatment of acne vulgaris. *J Am Acad Dermatol*. 2007 Mar;56(3):432-8. Epub 2007 Jan 18.
44. Ortiz A, Van Vliet M, Lask GP, Yamauchi PS. A review of lasers and light sources in the treatment of acne vulgaris. *J Cosmet Laser Ther*. 2005 Jun;7(2):69-75.
45. Papageorgiou P, Katsambas A, Chu A. Phototherapy with blue (415 nm) and red (660 nm) light in the treatment of acne vulgaris. *Br J Dermatol*. 2000 May;142(5):973-8.
46. Pollock B, Turner D, Stringer MR, Bojar RA, Goulden V, Stables GI, et al. Topical aminolaevulinic acid-photodynamic therapy for the treatment of acne vulgaris: a study of clinical efficacy and mechanism of action. *Br J Dermatol*. 2004 Sep;151(3):616-22.

47. Purdy S. Acne vulgaris. *Clin Evid*. 2006 Jun;(15):2183-201.
48. Purdy S, de Berker D. Acne. *BMJ*. 2006 Nov 4;333(7575):949-53.
49. Ross EV. Optical treatments for acne. *Dermatol Ther*. 2005 May-Jun;18(3):253-66.
50. Santos MA, Belo VG, Santos G. Effectiveness of photodynamic therapy with topical 5-aminolevulinic acid and intense pulsed light versus intense pulsed light alone in the treatment of acne vulgaris: comparative study. *Dermatol Surg*. 2005 Aug;31(8 Pt 1):910-5.
51. Seaton ED, Charakida A, Mouser PE, Grace I, Clement RM, Chu AC. Pulsed-dye laser treatment for inflammatory acne vulgaris: randomised controlled trial. *Lancet*. 2003 Oct 25;362(9393):1347-52.
52. Shaw JC. Hormonal therapy in dermatology. *Dermatol Clin*. 2001 Jan;19(1):169-78.
53. Smolinski KN, Yan AC. Acne update: 2004. *Curr Opin Pediatr*. 2004 Aug;16(4):385-91.
54. Steinsapir KD. The chemical peel. *Int Ophthalmol Clin*. 1997 Summer;37(3):81-96.
55. Strauss JS, Leyden JJ, Lucky AW, Lookingbill DP, Drake LA, Hanifin JM, et al. A randomized trial of efficacy of a new micronized formulation versus a standard formulation of isotretinoin in patients with severe recalcitrant nodular acne. *J Am Acad Dermatol*. 2001 Aug;45(2):187-95.
56. Strauss JS, Krowchuk DP, Leyden JJ, Lucky AW, Shalita AR, Siegfried EC, et al. Guidelines of care for acne vulgaris management. *J Am Acad Dermatol*. 2007 Apr;56(4):651-63. Epub 2007 Feb 5.
57. Taub AF. Photodynamic therapy for the treatment of acne: a pilot study. *J Drugs Dermatol*. 2004 Nov-Dec;3(6 Suppl):S10-4.
58. Taub AF. Procedural treatments for acne vulgaris. *Dermatol Surg*. 2007 Sep;33(9):1005-26.
59. Thiboutot D. Acne: 1991-2001. *J Am Acad Dermatol*. 2002 Jul;47(1):109-17.
60. Thiboutot D, Archer DF, Lemay A, Washenik K, Roberts J, Harrison DD. A randomized, controlled trial of a low-dose contraceptive containing 20 microg of ethinyl estradiol and 100 microg of levonorgestrel for acne treatment. *Fertil Steril*. 2001 Sep;76(3):461-8.
61. Thiboutot D. New treatments and therapeutic strategies for acne. *Arch Fam Med*. 2000 Feb;9(2):179-87.
62. U.S. Food and Drug Administration (FDA) Center for Devices and Radiological Health (CDRH). 510(k)s final decisions rendered for December 2003. Accessed Jan 16, 2005. Available at URL address: <http://www.fda.gov/cdrh/pdf3/k030834.pdf>
63. van de Kerkhof PC, Kleinpenning MM, de Jong EM, Gerritsen MJ, van Dooren-Greebe RJ, Ikemada HA. Current and future treatment options for acne. *J Dermatolog Treat*. 2006;17(4):198-204.
64. Wiegell SR, Wulf HC. Photodynamic therapy of acne vulgaris using methyl aminolaevulinate: a blinded, randomized, controlled trial. *Br J Dermatol*. 2006 May;154(5):969-76.
65. Yan AC. Current concepts in acne management. *Adolesc Med Clin*. 2006 Oct;17(3):613-37; abstract x-xi.
66. Yeung CK, Shek SY, Bjerring P, Yu CS, Kono T, Chan HH. A comparative study of intense pulsed light alone and its combination with photodynamic therapy for the treatment of facial acne in Asian skin. *Lasers Surg Med*. 2007 Jan;39(1):1-6.

Policy History

Pre-Merger Organizations	Last Review Date	Policy Number	Title
CIGNA HealthCare	2/15/2008	0043	Acne Procedures
Great-West Healthcare	12/20/2007	95.313.06	Cosmetic and Reconstructive Services

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